

AMENDMENTS TO THE CLAIMS

1-9 (Cancelled)

10. (Currently amended) ~~The process of Claim 8;~~ A process of preparing a ceramic material comprising

0.2 to 5 wt.% of carbon particles having a maximum particle size of 5 μm .

wherein said ceramic material has, an HV10 hardness of not more than 15.5

GPa, and an E modulus at room temperature of less than 330 GPa,

said process comprising the steps of:

providing raw materials:

wherein said raw materials comprise Si_3N_4 powder, sintering auxiliaries and optionally a dispersing auxiliary, and said organic additives are selected from at least one member of the group consisting of polyacrylates, polyvinyl alcohols, polyglycols and ~~polyvinylpyrrolidone.~~ polyvinylpyrrolidone.

said process ~~further~~ comprising.

forming said raw materials into a slip,

wet grinding the slip,

adding said organic additives to the slip, thereby forming a mixture

drying the mixture at temperatures below 200 $^{\circ}\text{C}$,

granulating the dried mixture,

shaping the granulated and dried mixture heated by heating thoroughly at temperatures of between 100 and 400 $^{\circ}\text{C}$ for a duration of 0.5 to 4 h in air, or between 100 and 800 $^{\circ}\text{C}$ for a duration of 0.5 to 4 h in an inert atmosphere or in vacuo, thereby forming a shaped body, and

sintering the shaped body by means of a two-stage process comprising a first stage and a second stage wherein

in the first stage the shaped body is treated for 0.5 to 5 h at a temperature of up to 2,000 $^{\circ}\text{C}$ under an N_2 or inert ~~gas pressure of 1~~ gas pressure of 10 to 50 bar,

in the second stage the shaped body is treated for 0.5 to 2.5 h at a temperature of up to 2,000 $^{\circ}\text{C}$ under an N_2 or inert gas pressure of 50 to 2,500 bar wherein process conditions are selected such that carbon particles are separated

out, and said ceramic material is free of at least one of macroscopic defects larger than 20 μm and optical heterogeneities larger than 50 μm .

11. (Currently amended) ~~The process of Claim 8,~~ A process of preparing a ceramic material comprising

0.2 to 5 wt.% of carbon particles having a maximum particle size of 5 μm ,
wherein said ceramic material has, an HV10 hardness of not more than 15.5
GPa, and an E modulus at room temperature of less than 330 GPa,

said process comprising the steps of:

providing raw materials:

wherein said raw materials comprise ZrO_2 powder, sintering auxiliaries, and optionally a dispersing auxiliary, and said organic additives comprise at least one member of the group consisting of polyacrylates, polyvinyl alcohols, polyglycols and/or polyvinylpyrrolidone.
said process ~~further~~ comprising,

processing said raw materials into a slip,

wet grinding the slip,

adding said organic additives to the slip, thereby forming a mixture,

drying the mixture at temperatures below 250 $^{\circ}\text{C}$,

granulating the dried mixture,

shaping the dried and granulated mixture by heating thoroughly at temperatures of between 100 and 400 $^{\circ}\text{C}$ for a duration of 0.5 to 4 h in air, or between 100 and 800 $^{\circ}\text{C}$ for a duration of 0.5 to 4 h in an inert atmosphere or in vacuo, thereby forming a shaped body, and
sintering the shaped body in a two-stage process comprising a first stage and a second stage, wherein

in the first stage the shaped body is treated for 0.5 to 5 h at a
temperature of up to 1,700 $^{\circ}\text{C}$ under an N_2 or inert gas pressure of 10 to 50 bar, and

in the second stage it the shaped body is treated for 0.5 to 2.5 h at a
temperature of up to 1,700 $^{\circ}\text{C}$ under an N_2 or inert gas pressure of 50 to 2,500 bar

wherein process conditions are selected such that carbon particles are separated out, and
said ceramic material is free of at least one of macroscopic defects larger than 20 μm and
optical heterogeneities larger than 50 μm .

12-14 (Cancelled)

15. (Previously presented) The process as claimed in Claim 10, wherein said sintering auxillaries are Y_2O_3 or

Y_2O_3 and Al_2O_3 .

16. (Previously presented) The process as claimed in Claim 11, wherein said sintering auxillaries are Y_2O_3 or

Y_2O_3 and Al_2O_3 .

17. (Previously presented) The process as claimed in Claim 10, wherein said sintering auxillaries are present in an amount form 5 to 20 wt. % based on the total solids content of the slip.

18. (Previously presented) The process as claimed in Claim 11, wherein said sintering auxillaries are present in an amount form 5 to 20 wt. % based on the total solids content of the slip.

19. (New) The process as claimed in Claim 10, which further comprises sieving a suspension, formed during said wet grinding, over a magnetic separator and a fine filter having a maximum filter pore size of 50 μm .

20. (New) The process as claimed in Claim 11, which further comprises sieving a suspension, formed during said wet grinding, over a magnetic separator and a fine filter having a maximum filter pore size of 50 μm .